



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/738,916	12/16/2003	Clifford W. Turnbull	501326.01	8363

7590 08/25/2006

Steven H. Arterberry, Esq.  
DORSEY & WHITNEY LLP  
Suite 3400  
1420 Fifth Avenue  
Seattle, WA 98101

EXAMINER
----------

GANEY, STEVEN J

ART UNIT	PAPER NUMBER
----------	--------------

3752

DATE MAILED: 08/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

8r

<b>Office Action Summary</b>	<b>Application No.</b> 10/738,916	<b>Applicant(s)</b> TURNBULL, CLIFFORD W.	
	<b>Examiner</b> Steven J. Ganey	<b>Art Unit</b> 3752	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 June 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4,9-13,18-20 and 23-51 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4,9-13,18-20 and 23-42 is/are allowed.
- 6) ☒ Claim(s) 43,44,46,50 and 51 is/are rejected.
- 7) ☒ Claim(s) 45 and 47-49 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Receipt is acknowledged of the amendment filed on June 8, 2006, which has been fully considered in this action.

#### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 43, 44, 46, 50 and 51 are rejected under 35 U.S.C. 102(b) as being anticipated by Buschmann.

Buschmann discloses a spray applicator comprising all the featured elements of the instant invention, note specifically gun 9 and level sensor comprising electrodes 2 and 3.

4. Claims 43, 44, 50 and 51 are rejected under 35 U.S.C. 102(b) as being anticipated by Weinstein.

Weinstein discloses a spray applicator comprising all the featured elements of the instant invention, note specifically gun 56 and level sensor comprising capacitance sensor 62.

5. Claims 43, 44, 50 and 51 are rejected under 35 U.S.C. 102(b) as being anticipated by Trusty et al.

Trusty et al discloses a spray applicator comprising all the featured elements of the instant invention, note specifically gun 13A and level sensor comprising capacitance sensor 73.

***Allowable Subject Matter***

6. Claim 1-4,9-13,18-20 and 23-42 are allowed.
7. Claims 45 and 47-49 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

8. Applicant's arguments filed June 8, 2006 have been fully considered but they are not persuasive.

In response to applicant's arguments that the references do not disclose or fairly suggest a sensor element configured to detect a liquid volume solely by sensing a resistance property of the liquid and that a capacitance sensor does not sense the liquid solely based upon the resistance of the volume of liquid in the supply vessel, note that a capacitive sensor functions by detecting the electric field between the two probes, and the liquid in the supply vessel acts as a dielectric liquid. The capacitive sensor senses the electrical conductivity of the liquid, which changes the capacitance of the sensor, the conductivity of the liquid is the inverse of the electrical resistance of the liquid. Different liquids have different dielectric values. Depending on the particular liquid the capacitive sensor senses the capacitance between the probes. Therefore, by measuring the increase or decrease in electrical conductivity(i.e. electrical resistance), of a dielectric liquid the measurement of the increase or decrease in the capacitance can also be determined. So as the level of the liquid varies, the amount of dielectric material between the probes varies, so the capacitance varies, which is an indication of the liquid volume in the vessel.

*Conclusion*

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

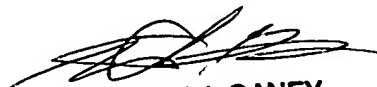
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven J. Ganey whose telephone number is 571-272-4899. The examiner can normally be reached on 7:00-5:00; M, Tu, W and Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Scherbel can be reached on 571-272-4919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

sjg  
8/18/06

  
STEVEN J. GANEY  
PRIMARY EXAMINER  
8/18/06